

BERNSHTEYN, L.A.; GORNYI, A.Kh.; POL'SKIY, L.L.; BATRAKOV, I.G.; KOPELETS, V.S.

Using hydro-cyclones for grading cement slurries of plastic raw materials. TSement 28 no.6:12-15 N-D '62. (MIRA 15:12)

1. Yuzhgiprotsement i Belgorodskiy tsementnyy zavod.
(Centrifuges) (Cement)

BERNSHTEYN, L.A.; KIRILLOV, Yu.D.; POL'SKIY, L.L.; SATARIN, V.I.; Prinsipali
uchastiya: GRANITSA, A.G.; KANOVICH, Ye.G.; GRODZINSKIY, Ya.Yu.
KHUDYAK, M.L.; DOBROLOVSKIY, G.G.; ZABLOTSKIY, Ye.Z.; RYZHKIN, D.I.;
OSTROVSKAYA, N.D.

Development and adoption of a system of hydraulic conveying of
raw slurry at the Novo-Zdolbunov Cement Plant. Trudy IUzhgipro-
tsments no.4:79-107 '63.

(MIRA 17:11)

1. Gosudarstvennyy institut po proyektirovaniyu tsementnykh
zavodov v yuzhnykh rayonakh SSR (for Granitsa, Kanovich,
Grodzinskiy, Khudyak). 2. Novo-Zdolbunovskiy tsementnyy zavod
(for Dobrolovski, Zablotskiy, Ryzhkin, Ostrovskaya).

PERLI, S.B., kand.tekhn.nauk; BERNSTEIN, L.A., inzh.; EDEL'MAN, I.Ye., inzh.

Reviews and bibliography. Tsement 31 no.5:24 S-O '65.

(MIRA 18:10)

BERNSHTEYN, L. B., Engineer

"Utilization of the Energy of Sea Tides." Sub 16 Jun 47, Moscow Order
of the Labor Red Banner Construction Engineering Institute imeni V. V. Kuybyshev

Dissertations presented for degrees in science and engineering in Moscow
in 1947

SO: Sum No. 457, 18 Apr 55

AUTHOR:

Bernshteyn, L.B., Candidate of Technical Sciences

SOV-98-58-2-5/21

TITLE:

Tidal Power Plants - a Guaranteed Source of Power (Prilivnyye elektrostantsii - istochnik garantirovannoy energii)

PERIODICAL:

Gidrotekhnicheskoye stroitel'stvo, 1958, Nr 2, pp 17-26 (USSR)

ABSTRACT:

There has been increased interest in tidal electric power plants (PES) abroad during recent years. Before the war, tidal energy was considered to be very expensive and "inconvenient". The reason for the high cost was the large discharge of water passing through the plant at low and changing pressures, causing fluctuations in the output. The author examines the question of tidal power reserves in the USSR, referring to the Murmansk sea coast with a maximum rise of 4 m at Murmansk increasing to 7 m at Lumbovka, to the White Sea, Terskiy, Zimniy coasts and Okhotsk Sea coast with rises of up to 10 m. Disregarding the Far East districts, the largest resources of tidal energy are concentrated in the Mezenskiy Bay of the White Sea (up to 90 billion kwh). Particulars are given on the potential of the bay, the average amplitude of tides and the yearly production of 14 planned Soviet and foreign tidal power plants. Figure 2 contains .

Card

Tidal Power Plants - a Guaranteed Source of Power

SOV-98-58-2-5/21

plan of the bays where these tidal electric power plants (PES) are to be erected. The author examines the characteristics of tidal energy plants, their positive properties and the extent to which shortcomings can be overcome. He gives a method for regulating the tide, considering that the suggested single basin plant of 2-way operation is the most effective for connection to a power system. Graph 7 shows the daily cycle of tides and determines the plant's capacity on any amplitude of tide. The erection of the Belomorskaya (White Sea) PES, by cutting off the Mezenskiy Bay along the line of the Konushin-Morzhovets-Voronov capes (a 100 km long dam, 15 - 50 m high), could produce a calculated 90 billion kwh. By 1975 this energy could be in the country's common power system (YES). The author discusses the Rance (Rans) plant in France and the Quoddy (USA) plant projects. In conclusion he explains how tidal energy will help the river energy to meet future peak loads, thereby assuring economic and rational operation of thermal and atomic power plants. This problem will become urgent in the USSR by 1970 - 1980, when river energy, fully utilized, can cover the peak load in cooperation with the Nizhne-Obiskaya GES and the Belomorskaya PES. The Lumbovka and the Kuloykaya PES (350 megawatt

Card 2/3

Tidal Power Plants - a Guaranteed Source of Power

SOV-98-58-2-5/21

capacity and 800 million kwh annual output each) should be built before the Belomorskaya PES. The construction of these two plants can be realized during the 1960 - 1965 period. There are 6 graphs, 1 diagram, 1 set of charts, and 9 references, 4 of which are Soviet and 5 French.

1. Electric power production--USSR
2. Tides--Economic aspects

Card 3/3

BERNSHTEYN, L.B., kand.tekhn.nauk

Turbines using tidal power and their importance for low-pressure
river electric power stations. *Energomashinostroenie* 4 no.12:
42-48 D '58. (MIRA 11:12)

(Tidal power) (Turbines)

SOV-25-58-10-13/48

AUTHOR: Bernshteyn, L.B., Candidate of Technical Sciences
TITLE: With "Blue Coal" (Na "sinem Ugle")
PERIODICAL: Nauka i zhizn', 1958, Nr 10, p 17-22 and p 2 of center fold (USSR)

ABSTRACT:

Tidal energy is estimated at 40 billion kw. In the US, USSR and other countries, plans were made for constructing tidal power plants, (PES) but because of the high production cost for electric energy they were not realized. The author considers the advantages and disadvantages of the PES and quotes plans made by the UK and France for this purpose. The greatest disadvantage is that the peak power of the tidal power plants is continuously changing and usually does not correspond with the peak load hours. The author considers a combination of a PES with a GES (hydro-electric power plant); the latter could work at reduced capacity during the peak capacity of the PES. Another possibility is to have the turbines work as pumps and the generators as motors during the peak capacity hours of the PES, thereby pumping part of the water into reservoirs. Moreover, the author points out that the PES

Card 1/2

With "Blue Coal"

SOV-25-58-10-13/48

could play an important role in the production of electric energy in the USSR in combination with river power plants which are subject to seasonal changes, high waters, etc. These variations are difficult to compensate by thermal power plants or atomic power plants alone, since the latter should have an even operation. The author mentions some sites at which a PES might be constructed in the USSR, such as Archangelsk, Murmansk, the Lumborskaya and Mezenskiye bays, and on the White Sea. There are 10 diagrams and one drawing.

1. Tides--Applications
2. Water power--Production

Card 2/2

~~PERNSHTEIN, I. A. Raznoobrazie~~ land.tekhn.nauk; ISLANKINA, T.F., red.;
SAVCHENKO, Ye.V., tekhn.red.

[Conquest of the tide energy] Pokorenie energii priliva.
Moskva, Izd-vo "Znanie," 1959. 31 p. (Vsesoluznoe obshchestvo
po rasprostraneniю politicheskikh i nauchnykh znaniy. Ser.9,
Fizika i khimiya, no.27) (MIRA 12:12)
(Tidal power)

*U.S. Society for Promotion of R & D in
Scientific Knowledge*

~~BERNSHTEYN, Lev Borisovich, kand.tekhn.nauk; ISLANKINA, T.F., red.;~~
~~SAVCHENKO, Ye.V., tekhn.red.~~

[Harnessing tidal power; stenographic transcript of a public lecture delivered in the Society's Central Lecture Hall in Moscow] Pokorenie energii priliva; stenogramma publichnoi lektsii, pročitannoi v Tsentral'nom lektorii Obshchestva v Moskve. Moskva, Izd-vo "Znanie," 1959. 31 p. (Vsesoiuznoe obshchestvo po rasprostraneniю politicheskikh i nauchnykh znaniy. Ser.4, Nauka i tekhnika, no.36) (MIRA 12:11)
(Tidal power)

SOV/98-59-1-7/14

AUTHOR: Bernshteyn, L.B., Candidate of Technical Sciences

TITLE: The Increase in the Efficiency of the Low Pressure Head
GES (Povysheniye effektivnosti nizkonapornykh ges)

PERIODICAL: Gidrotekhnicheskoye stroitel'stvo, 1959, Nr 1, pp 33-42
(USSR)

ABSTRACT: Different types of horizontal turbines created abroad
are described in this article. As a result of the
development of an axial-flow horizontal turbine in the
last twenty years, a tidal turbine "Saint-Malô - Rance"
with reversible runners, so-called compact monoblock,
was created in France in 1958. The author finds that
this type is the most adequate for use in the low-
pressure-head hydro-electric power plants, because the
large plant, usually needed when vertical turbines are
used, can be replaced by a corridor-like (skvozhnoy)
building, the turbine-generator block, enclosed in a
stream-lined container, being immersed in the water.
In the USSR, the world's most powerful horizontal
aggregate (21,000 kilowatts) was designed by B.K.

Card 1/ 3

SOV/98-59-1-7/14

The Increase in the Efficiency of the Low Pressure Head GES

Aleksandrov, built by LMZ (Leningradskiy mashinnyy zavod - the Leningrad Machine Plant) and installed at the Kama GES. In 1949, Engineer Ye.M. Gol'din patented another horizontal aggregate with the generator in the draining pipe. A model of a horizontal turbine with reversible runners was also constructed by LMZ but, owing to the dimensions of its generator, the whole aggregate placed in a container occupied too much room. The author recommends the French solution of the problem, that is the creation of a new type of generator. The advantages of the use of a monoblock turbine aggregate are: the corridor-like building 80% from prefabricated concrete; the volume of the concrete in relation to 1 kilowatt will thus be reduced four times in comparison with the volume used for the construction of a power plant with vertical turbines. The combination of the turbine with the generator in a monoblock aggregate in a stream-lined container will increase by 70% the capacity of the GES.

Card 2/3

SOV/98-59-1-7/14
The Increase in the Efficiency of the Low Pressure Head GES

There are 13 graphs, eight diagrams, two figures and one photo and 15 references, ten of which are Soviet, three French and two German.

Card 3/3

BERNSHTEYN L.B.

LAZAREV, Petr Petrovich, akademik [deceased]. Prinimali uchastiye:
BERNSHTEYN, L.B.; FEDIN, E.I.; SHMIDT, V.V.. KITAYGORODSKIY,
A.I., prof., otv.red.; POLENOVA, T.P., tekhn.red.

[Energy, its sources on the earth and its origin] Energiia,
ee istochniki na zemle i ee proiskhozhdenie. Moskva, Izd-vo
Akad.nauk SSSR, 1959. 274 p. (MIRA 13:2)
(Force and energy)

LAZAREV, Petr Petrovich, akademik [deceased]. Prinsipialni uchastiye:
BERNSHTEYN, L.B.; FEDIN, E.I. KITAYGORODSKIY, A.I., prof.,
otv.red.; SEMIDT, V.V., red.isd-va; POLENOVA, T.P., tekhn.red.

[Energy, its sources on the earth and its origination] Energiia,
ee istochniki na zemle i ee proiskhozhdenie. Moskva, Izd-vo
Akad.nauk SSSR, 1959. 277 p. (MIRA 12:8)
(Force and energy) (Nuclear physics)

BERNSHTEYN, L.B., kand. tekhn. nauk

Development of sets for tidal power stations and their utilization in low-pressure river hydroelectric power stations. Energokhoz. za rub. no.1:42-45 Ja-F '59. (MIRA 12:4)
(Tidal power) (Hydroelectric power stations)

BERNSHTEYN, L.B., kand.tekhn.nauk

Bulb-type and tubular hydraulic units in Japan. Energokhoz. za
rub. no.5:42-44 S-O '60. (MIRA 13:10)
(Japan--Hydroelectric power stations)

BERNSHTEYN, L.B., kand.tekhn.nauk

Using through-type floating dock-blocks in building power
houses of run-of-river and storage electric-power plants.

Gidr.stroi. 30 no.1:22-28 Ja '60. (MIRA 13:5)

(Hydroelectric power stations)

(Precast concrete construction)

BERNSHTEYN, L.B., kand.tekhn.nauk

Use of tidal power in the Chinese People's Republic.

Gidr. stroi. 30 no.6:50-52 Je '60.

(MIRA13:7)

(China--Tidal power)

BERNSHTEYN, Lev Borisovich; Terman, Il'ya Arkad'yevich, red.; LEVIN,
~~Vasil'y Andreyevich~~, red.; MAR'YANSKIY, L.P., red. izd-va;
BORUNOV, N.I., tekhn. red.

[Tidal electric power plants in modern power engineering] Pri-
livnye elektrostantsii v sovremennoi energetike. Moskva, Gos.
energ.izd-vo, 1961. 270 p. (Materialy po proektirovaniu gidro-
energeticheskikh uzlov. Seriya 4. Gidroelektrostantsii. Kon-
struktsii i materialy) (MIRA 15:2)
(Tidal power) (Hydroelectric power stations)

BERNSHTEYN, L.B., kand. tekhn. nauk; GRISHIN, M.M., doktor tekhn.
~~nauk, prof.~~, red.; VUL'FERT, I.I., spets. red.; POGREBNAYA,
L.L., red. izd-va; KOLESNIKOVA, A.P., tekhn. red.

[German-Russian dictionary of hydraulic engineering] Nemetsko-
russkii gidrotekhnicheskii slovar'. Pod red. M.M.Grishina. Mo-
skva, Glav. red. inostr. nauchno-tekhn. slovarei Fizmatgiza,
1961. 579 p. (MIRA 15:3)

(German language--Dictionaries--Russian)
(Hydraulic engineering--Dictionaries)

BERNSHTEYN, L.B., kand. tekhn. nauk; KORKHOVA, V.I., red.; KOGAN, F.L.,
tekhn. red.

[Uniflow and submersible turbines] Priamotchnye i pogruzhennye
gidroagregaty. Moskva, TSentr. in-t nauchno-tekhn.informatsii
mashinostroeniia, 1962. 208 p. (MIRA 16:2)
(Hydraulic turbines) (Hydroelectric power stations)

S/025/62/000/011/005/005
D230/D308

AUTHOR: Bernshteyn, L.B., Candidate of Technical Sciences

TITLE: On the shores of Murmansk and La Manche

PERIODICAL: Nauka i zhizn', no. 11, 1962, 59-65

TEXT: A historical review of the development in tidal electric stations in two important centers: Kislogubsk, Murmansk, USSR, and Rance, St. Malo, France. The Rance project producing at present 240,000 kw/h of energy will deliver 600 m kw/h per annum in 5 years. It operates on a single-basin cycle, two dimensional action, in which the energy is generated by turbines. The analysis shows that a multi-basin cycle method of tidal energy utilization is uneconomical. Soviet designs of tidal electrical stations aim at producing an adequate amount of electric energy to meet peak demands, this can be achieved by using reversible hydro-systems for a simultaneous operation of tidal and river electric stations. Work is in progress towards harnessing and centralization of tidal, thermal and hydraulic stations into a single system of energy supply. ✓

Card 1/2

On the shores of Murmansk ...

S/025/62/000/011/005/005
D230/D308

Special problems arising from the separation of the electric stations and industrial centers are discussed. It is envisaged that future tidal electric stations are to be transportable, self-contained, thin-walled structures which could be towed to their destinations. There are 7 figures. ✓

Card 2/2

BERNSHTEYN, L.B., kand.tekhn.nauk

Saint Malo hydraulic capsule system. Energomashinostroenie
8 no.5:45-48 My '62. (MIRA 15:5)
(France--Tidal power) (Hydraulic machinery)

BERNSHTEYN, L.B., kand.tekhn.nauk

On the Murman Coast and the English Channel. Nauka i zhizn' 29
no.11:58-64 N '62. (MIRA 16:1)

1. Vsesoyuznyy ordena Lenina proyektno-isyskatel'skiy i nauchno-
issledovatel'skiy institut imeni Z.Ya.Zhuk.
(Tidal power)

BERNSHTEYN, L.B., kand. tekhn. nauk

Experimental tidal electric power plant. Gidr. stroi. 32 no.3:
33-37 Mr '62. (MIRA 16:7)

(Kislava inlet—Hydroelectric power stations)

BERNSHTEYN, L.B., kand.tekhn.nauk (Moskva)

Tidal energy calculations, spurious and real. Priroda 53 no.7:84-
86 '64. (MIRA 17:7)

BERNSHTEYN, L.G., inzh.; NEMIROVSKIY, L.R., inzh.

Thermocouple for measuring the temperature of return air in
a kiln with grate cooler. TSement 31 no.4:11-12 J1-Ag '65.
(MIRA 18:8)

1. Institut Giprostromavtomatizatsiya.

SAFRIS, I.Ye.; ~~HERNSHTEYN, L.M.~~

Hydraulic copying systems with a differential cylinder for
volume duplication. Stan. 1 instr. 26 no.4:10-12 Ap '55.
(Milling machines) (MLRA 8:6)

Bernsh teyn, L.M.

AUTHOR: Bernsh teyn, L.M. (Engineer)

110-2-3/22

TITLE: On the selection of tolerances for the compound impregnation of the high voltage sections of electrical machines. (O vybore pripuskov na kompaundirovaniye dlya vysokovol'tnykh sektiyei elektricheskikh mashin.)

PERIODICAL: Vestnik Promyshlennosti, 1958, Nr. 2, pp.12-15 (USSR)

ABSTRACT: During 1954-6 the works imeni Vladimir Il'ich investigated the laws of change of dimensions of insulation for medium-power electric motors of 3 and 6 kV during the process of compound impregnation. It has been noticed for some time that impregnation disturbed the nominal dimensions of windings. High-voltage windings are insulated with several layers of high-quality mica tape. Because of its elastic properties, the tape cannot be applied quite firmly, and voids are left which can be ionised by electric stress. Therefore, the windings are treated with hot bitumen compound in a hydraulic press. It is usually considered that the changes in dimensions during this process are the same on the width and the height of the sections, but in fact this is not so. During the process of hydraulic pressing the winding is compressed on its greatest length, and swells somewhat on the narrow length. Very often allowance was not made for this and the windings would not fit the slots. Dimensional variations observed during pressing result from non-uniform tension of the insulation, which depends both on the operator and on the materials.

Card 1/3

110-2-3/22

On the selection of tolerances for the compound impregnation of the high voltage sections of electrical machines.

The average changes in dimensions of high-voltage windings were determined by making measurements on a large number of insulated sections of different types. A relationship was established for the tolerances to be allowed for changes in dimensions on compounding, depending on the ratio of the height to the breadth of the winding. Figs. 1, 2 & 3 give statistical data of the changes in high-voltage insulation as a function of this ratio. It will be seen from Fig. 3. that for 3 kV sections the change in width is relatively small, and that the change in height is appreciably larger. The method of impregnation at the Vladimir Il'ich works causes the width of 3 kV sections to increase by an average of 0.7 mm. In 6 kV windings there are more layers, not all penetrated by bitumen, and, therefore, pressing plays a larger part in changing the dimensions than at 3 kV. The data given for the changes are also typical for products of other factories. Another feature of high-voltage sections is that when heated and placed in the slots, their section height decreases. This diminution in height may be 30% of the increase in height during impregnation. If this is not allowed for, the slots will be too deep. In the light of the results given the works has succeeded in making insulated windings which fit very well in the slots.

Card 2/3

110-2-3/22

On the selection of tolerances for the compound impregnation of the high voltage sections of electrical machines.

A numerical example is given of calculation of the allowance for impregnation. As a result of the improved fit of windings in the slots the insulation is less subject to damage on assembly and the machines are more reliable. There are 4 figures and no literature references.

ASSOCIATION: Works imeni Vladimir Il'ich (Zavod imeni Vladimira Il'icha)

AVAILABLE: Library of Congress.

Card 3/3

AUTHOR: Bernshteyn, L.M. (Engineer) SOV/110-58-8-6/26

TITLE: ~~The Use of Water-emulsion Varnish~~ 321-T for the
Impregnation of Components of Electrical Machines
(Primeneniye vodoemul'sionnogo laka 321-T dlya propitki
uzlov elektricheskikh mashin)

PERIODICAL: Vestnik Elektromyshlennosti, 1958, Nr 8, pp 19-25 (USSR)

ABSTRACT: This article describes tests made to study the influence of impregnating varnishes on the electric strength of the enamel insulation of wires using vinyflex (PEV-2) and polyurethane impregnated with varnishes 447 (bitumen/oil with organic solvent), 321T (water-emulsion), ARB and AF17. The tests were made on simulated slots consisting of brass tubes 13 mm diameter and 110 mm long. The tubes were insulated internally with a layer of paper, then filled with lengths of insulated copper wire. Finally they were varnished by dipping, and dried. The mean and minimum values of electric strength of the various samples tested are given in a table. Impregnation in water-emulsion varnish increased the electric strength of the vinyflex enamel insulation by about 25%, whereas

Card 1/4

SOV/110-58-8-6/26

The Use of Water-emulsion Varnish 321-T for the Impregnation of Components of Electrical Machines

varnishes 447, AF17 and ARB1 reduced it by 30%. The possibility of replacing varnish 447 by varnish 321T was investigated, using various parts of electric machine type EMU-12A3A wound with wire with vinyflex insulation. The method of insulating the slots is described. The specimens were dried in various ways. The curves of insulation resistance as a function of drying time show that the windings are dry after 6 - 8 hours at a temperature of 125 - 130°C. Then measurements were made of insulation resistance during exposure of the specimens for 20 days in a humidity cabinet. Voltage tests were also made. After the humidity tests the samples were maintained at 150°C for 15 days and then returned to the humidity cabinet for 20 days. These tests were made three times. Three complete machines were impregnated with varnish 321T and no damage was evident when the machines were run over-speed at 150°C. Two stators were specially made up for breakdown-voltage tests on the slot insulation. The results of moisture-resistance tests are displayed in Figs 2 and 3, which show that both

Card 2/4

SOV/110-58-8-6/26

The Use of Water-emulsion Varnish 321-T for the Impregnation of Components of Electrical Machines

types of varnish give equally good results. The results of moisture-resistance tests combined with temperature cycling are plotted in Figs 4, 5 and 6. After the third cycle, the insulation resistance of samples impregnated with varnish 321-T is much higher than that of those impregnated with varnish 447. All samples withstood tests at 1 kV. A further twelve motors of the standard series were impregnated with varnish 321-T. It took longer to remove the water from the varnish than to remove the organic solvent from varnish 458, but the final insulation resistance was as good. The impregnated rotors and stators were maintained in a humidity cabinet for 25 days; the test curves appear in Fig 7. Curves of recovery of insulation resistance on standing in the workshop are given in Fig 8. Varnish 321-T showed the higher insulation resistance on humidity tests. Other rotors were made up, and their breakdown-voltage was determined after 20 days in a humidity cabinet. The

Card 3/4

SOV/110-58-8-6/26

The Use of Water-emulsion Varnish 321-T for the Impregnation of Components of Electrical Machines

results, as seen in Fig 9, are not very different. It is concluded that the use of water-emulsion varnish gives better insulation than the use of bitumen/oil varnishes 447 and 458. The water-emulsion varnish can be used with a wide range of materials: it should be dried at a temperature of not less than 120°C.

There are: 1 table and 9 figures.

SUBMITTED: March 11, 1958

1. Varnishes--Applications

Card 4/4


S/193/60/000/007/004/012
A005/A001

AUTHORS: Knyazhitskiy, I. I., Bernshteyn, L. M.

TITLE: Vertical Milling Machine of the OF-41 (OF-41)-Make With Program Control

PERIODICAL: Byulleten' tekhniko-ekonomicheskoy informatsii, 1960, No. 7, pp.20-22

TEXT: The vertical milling machine of the OF-1-make with program control was developed and produced by the Odesskiy zavod frezernykh stankov im. S. M. Kirova (Odessa Milling Machine Works im. S. M. Kirov) in 1959 and is provided for processing surfaces by milling in three directions: longitudinal, transversal, and vertical, according to the program as well as for automatic processing of openings with preset distances between their axes without marking and jigs. The program control processing is connected with the tool replacing. Manual operation is possible. - The machine design is cantileverless. The horizontal compound rest has the operation area 320 x 1,250 mm, is mounted on the rigid machine bed, and carries out two motions: longitudinal and transversal by the transverse slide. The spindle head travels vertically along the guides of the column. The machine is fitted out with hydraulic cylinders for travel and clamp of the rest, the
sl1
Card 1/2



S/193/60/000/007/004/012
A005/A001

Vertical Milling Machine of the $O\Phi-41$ ($OF-41$)-Make With Program Control

slides, and the head. - The hydraulic servomechanism in the electrohydraulic control system has an electrical command unit connected with the programming system. - The hydraulic drive allows a wide stepless feed range from 30 to 500 mm/min as well as the accelerated travel with 1 - 1.5 m/min speed. The machine allows cut-up and cut-down milling. - After finishing the automatic preset processing, the machine stops, and the operation units return into their initial position. - The program assembly switches are distributed on the front side of the electric cabinet in 20 horizontal series each of which corresponds to one stage of processing. A light table is used for the supervision of programming and processing. The chief elements of the program control system are the inductive transfer converters and the electrocontact counters. For reading-off the magnitudes of travel and for commanding the transition to slowed down feed at the approach to a prescribed coordinate serve counter, and for accurate ending the motion serve inductive converters. - The error in stopping in an arbitrary prescribed coordinate did not exceed 0.03 mm at multiple execution of commands. The error in stopping the operating support at an arbitrary point according to the command of the program control mechanisms did not exceed 0.08 mm. - There is 1 figure.

Card 2/2

BERNSHTEYN, L.M., inzh.

Design and manufacturing technology of stator winding sections for
high-voltage electric motors. Vest.elektromprom. 31 no.3:38-41
Mr '60. (MIRA 13:6)

(Electric motors--Design and construction)

BAREMBO, Konstantin Nikolayevich; BERNSHTEYN, Lyudmila Mikhailovna;
RUBO, L.G., red.; BORUNOV, N.I., tekhn. red.

[Drying, saturation, and compounding of electrical
machinery windings] Sushka, propitka i kompaundirovanie
obmotok elektricheskikh mashin. Moskva, Gos. energ. izd-vo
1961. 367 p. (MIRA 15:2)
(Electric machinery--Windings)

S/110/61/000/001/007/023
E194/E455

AUTHOR: Bernshteyn, L.M., Engineer

TITLE: A New Method of Insulating Low-Voltage Half-Coil Windings

PERIODICAL: Vestnik elektropromyshlennosti, 1961, No.1, pp.21-25

TEXT: The most laborious operation in the manufacture of stator turns of standard series induction motors of No.10 and 11 frame sizes with semi-open stator slots is the application by hand of cotton tape to the end windings. With the existing geometry of the end windings, this operation cannot be mechanized. It is accordingly advisable to insulate the end windings by treatment with thermal-setting compounds of good binding characteristics. Compounds based on varnish¹⁵ grade KΠ-22 (KP-22)¹⁶ were developed for this purpose. Varnish grade KP-22 is made by mixing manufactured polyesters with benzoyl peroxide, drying agents and inhibitors. The varnish is very viscous but still it does not give a thick enough film when applied to the windings. A filler was used both to cheapen the material and to make the film thicker. To obtain a good surface, the windings must first be dipped in varnish and dried before application of the final coat. Varnish KP-22 does
Card 1/5

S/110/61/000/001/007/023

E194/E455

A New Method of Insulating Low-Voltage Half-Coil Windings

not take well on certain other kinds of varnishes, notably bakelite varnish or varnish grade 1155. However, varnishes grade 321-T and 447 are suitable if dried for 1 or 2 hours at a temperature of 100 to 120°C. The application of a single layer of varnish KP-22 to the end winding gives only a thin film, even when a considerable concentration of filler is used in the compound, but it binds the turns of the section together well and the film is not obviously damaged when the windings are assembled in the stator. However, the electric strength of such insulation is low and a second coat of compound considerably increases the electric strength; there are no visible pores and the breakdown voltage is 7.2 kV. Results are given which show that the maximum concentrations of fillers are: talc, 45%; mica powder, 30%; Marshallite, 60%. Marshallite was found particularly suitable and when used in proportions of up to 50 or 60% makes the compound much cheaper. In order to check the suitability of the new method of manufacture, eight sets of windings were made up for standard series induction motors of frame sizes No.10 and 11. In making up the windings, varnish grade KP-22

Card 2/5

S/110/61/000/001/007/023
E194/E455

A New Method of Insulating Low-Voltage Half-Coil Windings

was applied to the end windings before pressing and was dried for 15 or 20 minutes at 150 to 170°C. Then, instead of tape, compound was applied to the end windings and the windings, and the drying was repeated. When the windings were assembled in the stator no damage to the film or displacement of turns was observed. After testing at 3500 V, all the windings were removed from the stator for further tests. Test results are given of the breakdown strength of end windings both before and after assembly, and it is shown that assembly had done negligible damage. The new insulation was tested for resistance to water and heat, and the breakdown strength was determined as a function of the time of exposure to an atmosphere of 95 to 100% relative humidity at a temperature of 20 to 25°C. The results show that compound KP-22 may be recommended for windings of non-water-resistant construction. The heat resistance was determined by prolonged ageing and also at temperatures of 150 and 170°C, and the binding properties of the compound were determined. The cementing properties of the compound were found to be satisfactory. During service, the

Card 3/5

✓

S/110/61/000/001/007/023
E194/E455

A New Method of Insulating Low-Voltage Half-Coil Windings

mechanical strength of the film increases, and the initial strength can also be increased by additional stoving. A special feature of type KP varnishes is their ability to harden in a thick layer in a very short time without evolution of secondary products. It was established that at temperatures up to 140°C, the rate of polymerisation is comparatively low but it increases considerably with further increase in temperature. The viscosity of the varnish and compound is much reduced as the temperature is raised from 20 to 100°C; further increase in temperature has little influence on the viscosity. The lowest temperature at which it is advisable to dry the coating on the windings is 150°C. The drying time depends on the method of heating. Convective heating is not very satisfactory and drying by passage of current is unsatisfactory; the most effective method is radiant heating. It will raise the coating to a temperature of 150°C in 3 or 5 minutes, which is sufficient to dry the coating. With the new method of insulating the end winding, it was possible to mechanize the process of manufacture of the windings, thereby saving about 7 man-hours on Card 4/5

S/110/61/000/001/007/023
E194/E455

A New Method of Insulating Low-Voltage Half-Coil Windings

each set of windings. The viscosity of the varnish increases on storage and begins to increase rapidly after 16 or 17 days. If an inhibitor is used, the storage time may be increased to 30 to 40 days but the rate of drying is somewhat reduced. The Marshallite is also liable to settle out; therefore the compound should be stirred frequently. There are 7 figures and 2 tables.

SUBMITTED: August 17, 1960

Card 5/5

BERSHTEYN, L.M.

Changes in the motor and sensory chronaxy in goiter patients.
Probl. endok. i gorm. 9 no.6:71-75 N-D '63.

(MIRA 17:11)

1. Iz kafedry propedevtiki vnutrennikh bolezney (zav. Ya.Ya. Riiv
[J.Riiv]) Tartuskogo universiteta i Estonskogo respublikanskogo
protivozobnogo dispansera (glavnyy vrach V.N. Peshkov).

VOLOVSKIY, D.S.; BERNSHTEIN, L.M.

Hygienic evaluation of new mining cutter-loaders tested in the
Karaganda coal basin. Nauch. trudy KNIUI no.13:385-387 '64
(MIRA 18:1)

8c

L 34848-65 EPA(s)-2/EWT(m)/EPF(c)/EWG(v)/EPR/EPA(w)-2/EMP(j) PC-4/Pab-10/Pe-5/Pr-4/
 ACCESSION NR: AP5008546 Ps-4/Pt-10 WW/RM S/0286/65/000/006/0061/0061 68

AUTHOR: Alekseyenko, V. I.; Pokrovskiy, N. I.; Mishustin, I. U.; Lebedev, Yu. I.;
Kudryavtsov, V. V.; Levin, B. I.; Abrahamyan, I. A.; Rekst, V. B.; Bernshteyn, L. M.;
Kazanova, L. I.; Irvankina, I. A.; Ishayeva, A. I.; Luginina, V. A.

TITLE: A method for producing insulating plastics, Class 39, No. 169246 15

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 6, 1965, 61

TOPIC TAGS: plastic insulator, polar polymer, nonpolar polymer

ABSTRACT: This Author's Certificate introduces a method for producing insulating plastics based on polyvinylchloride modified with rubber. The electrical insulation properties and heat resistance of the product are improved by using a mixture of polar and nonpolar rubbers as the modifiers with the addition of mineral fillers.

ASSOCIATION: none

SUBMITTED: 31Mar61 ENCL: 00 SUB CODE: MT,GC

NO REF SOV: 000 OTHER: 000

Cord 1/1

ZUL', N.M., kand.tekhn.nauk; KOZYULIN, A.S., inzh.; KURTSVAYL', G.I., inzh.;
BERNSHTEYN, L.Kh., inzh.; YEGANOV, B.N., inzh.

Spur protection on 6-10 kv. lines. Energetik 6 no.7:11-18 J1 '58.
(Electric switchgear) (MIRA 11:10)

BERNSHTEYN, L. Ye.; NALIMOV, V.V.; FAL'KOVA, O.B.

Planning of an experiment and presentation of its results in the estimation of the precision and accuracy of spectral methods of analysis of geological specimens. Zav.lab. 27 no.10:1254-1260 '61. (MIRA 14:10)

1. TSentral'nyy nauchno-issledovatel'skiy geologorazvedochnyy institut i Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut redkometallicheskey promyshlennosti.
(Niobium oxide---Spectra)

BERNSHTEYN, M.A.

Peculiarities of the development of gas deposits belonging to
reservoirs having heterogeneous permeabilities. Gas.prom no.2:7-10
F '56. (MIRA 10:1)

(Gas, Natural) (Permeability)

BERNSHTEYN, M.A.; REYTERBAKH, G.R.

Exploiting pools of high-viscosity oil and the conditions
effecting its filtration in reservoir sands. Neft.khoz. 35
no.1:53-58 Ja '57. (MLRA 10:2)

(Petroleum geology)

BERNSHTEIN, M.A.

Establishing the actual reserves of gas fields. Gas. prom. 8
no.2:1-6 '63. (MIRA 17:8)

BERNSHTEYN, M.A.; BLOKH, S.S.; BELOV, V.I.

Certain results of deep-well investigations of gas wells with
MGG-2_u and DGM-4/2 manometers. Gaz. prom. 9 no.4:7-10 '64.

(MIRA 17:8)

TREBIN, F.A.; BERNSTEYN, M.A.; YELOVNIKOV, S.I.; RULEV, N.A.; SOLNTSEV, O.A.

Prospects for the development of the gas and oil industries of
the Komi A.S.S.R. Neft. khoz. 43 no.3:34-39 Mr '65.

(MIRA 18:6)

(N) L 27325-66

ACC NR: AM6001051

Monograph

UR/
34

Bernshteyn, M. B. (Docent); Goryainov, V. YU. (Professor); Denisov, V. V. (Engineer, Captain); Khomyakov, N. M. (Doctor of Technical Sciences, Professor)

B41

Electrical engineering and electrical equipment for ships (Elektrotehnika i elektro-oborudovaniye sudov) Moscow, Izd-vo "Transport," 1964. 504 p. illus., biblio.
Errata slip inserted. 10,300 copies printed

TOPIC TAGS: electrical engineering, marine equipment, electric equipment, power supply, power plant

PURPOSE AND COVERAGE: This book has been approved by the Department of Educational Institutions of the Ministry of Sea Transport as a textbook for students of mechanical specialties of maritime and Arctic schools of the ministry. It may also be useful to crew members concerned with operation of shipboard electrical equipment. The book deals with basic information on the principles of electrical engineering and magnetism. Characteristic features of electromagnetic energy, methods of its generation, transmission, and practical applications aboard ship are discussed. Circuit diagrams of shipboard electric drive controls are given.

TABLE OF CONTENTS:

Foreword -- 3

Introduction -- 5

Card 1/4

L 27325-66

ACC NR: AM6001051

Part One. Electrical Engineering

- Ch. I. Electric field -- 7
- Ch. II. D-c circuit -- 17
- Ch. III. Magnetic field produced by electric current -- 27
- Ch. IV. Electromagnetic induction -- 38
- Ch. V. Single phase a-c -- 48
- Ch. VI. A-c circuits containing only a single parameter -- 58
- Ch. VII. A-c circuits containing several parameters -- 72
- Ch. VIII. Branching in a-c circuits -- 88
- Ch. IX. Three-phase a-c -- 97
- Ch. X. Electrical measurements -- 113
- Ch. XI. D-c electric machinery -- 131

Card 2/4

L 27325-66

ACC NR: AM6001051

Ch. XII. Transformers -- 185

Ch. XIII. A-c electric machinery -- 205

Ch. XIV. Chemical and thermal sources of electric power. Conductors, semiconductors, and dielectrics -- 240

Part Two. Ship Electrical Equipment

Ch. XV. Characteristic structural features of ship electrical equipment. Current and voltage types -- 260

Ch. XVI. D-c and a-c ship power plants -- 271

Ch. XVII. High-power ship electrical machinery -- 307

Ch. XVIII. Ship distribution systems -- 345

Ch. XIX. Ship wires and cables -- 353

Ch. XX. Ship electrical networks -- 362

Ch. XXI. Ship lamps, searchlights and heaters -- 383

Card 3/4

L 27325-66

ACC NR: AM6001051

Ch. XXII. Electric drives of ship mechanisms -- 397

Ch. XXIII. Electric propulsion of ships -- 426.

Ch. XXIV. Ship intercommunication systems, instruments of ship control, and electric signalling -- 441

Ch. XXV. Operation and maintenance of ship electric equipment -- 468

Appendix -- 481

Bibliography -- 499

SUB CODE: 09, 13/ SUBM DATE: 05Nov64/ ORIG REF: 018/

Cord

4/4

20

SEME NOVICH, V.G.; MARKUSHKIN, V.G.; ZAYONCHKOVSKIY, A.D.; ZOLOTOV, V.I.;
BERNSHTEYN, M.Ch.; YABKO, Ya.M.; SMETKIN, Yu.A.

The KhOM-2 machine for the manufacture of continuous disoriented
fiber bases. Kozh.-obuv.prom. 4 no.11:20-24 N '62. (MIRA 15:11)

(Leather, Artificial) (Nonwoven materials)

BERNSHTEYN, M.B., dots.; GORYANOV, V.Yu., prof.; DENISOV, V.V.,
inzh.-elektrik; KHOMYAKOV, N.M., prof., doktor tekhn.
nauk; AKULOVA, Yu.I., inzh., retsenzent; REBO, I.Yu., red.

[Electrical engineering and electrical equipment of ships]
Elektrotehnika i elektrooborudovanie sudov. [By] M.B.
Bernshtein i dr. Moskva, Transport, 1964. 504 p.
(MIRA 18:6)

BERNSHTEYN, M.D., inzh.

Conference on the mechanization of melioration and road-maintenance
work. Stroi. i dor. mash. 10 no.3:31-32 Mr '65.

(MIRA 18:5)

BERNSHTEYN M.D., inzhener.

Device for changing the pressure of road rollers; survey of foreign technology. Stroil. i dor. mashinostr. 1 no.4:40 Ap '56.

(MIRA 10:1)

(Great Britain--Rollers (Earthwork))

BERNSHTEYN, M.D., inzhener.

New type combined earthmoving and loading machine. Stroiki dor.
mashinostr. 1 no.10:37-38 0 '56. (MLRA 9:11)
(United States-Earthmoving machinery)

BERNSHTEYN, M.D.

The British Vickers VR-180 tractor. Avt. 1 trakt. prom. no.7:
43-44 J1 '56. (MLRA 9:10)

(Great Britain--Tractors)

VOLCHEK, Ya.A.; LOZHECHNIKOV, Ye.B.; BERNSHTEYN, M.D.; BAZANOV, A.F.,
kand. tekhn. nauk, retsentsent; OTDEL'NOV, P.V., red. izd-va;
GORDEYEVA, L.F., tekhn. red.

[Automotive loaders] Samokhodnye pogrushchiki. Moskva, Gos.
nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1963. 242 p.
(MIRA 16:6)

(Loading and unloading--Equipment and supplies)

BERNSHTEYN, M. Kh.; YAKO, Ya.M.; ZAYONCHKOVSKIY, A.D.; VISHNEVSKAYA, M.D.;
LEV, M.V.; SIRIS, A.L.; KOCHETKOVA, I.V.; VASIL'YEVA, M. Ye.

Toe-puffs made from thermosetting and thermoplastic polymers.
Kozh.-obuv. prom. 7 no. 10:18-22 0 '65 (MIRA 19:1)

13

Disintegrating fiber fillers for the preparation of leather substitute. A. P. Pisarenko and M. Kh. Bernshteyn. *Koshtvenno-Obuvnaya Prom.* 17, No. 3, 49-52(1938); *Chem. Zentr.* 1939, II, 300.---Fibers 1.03 to 0.03 mm. long were obtained after treating lint with 1% HCl in a roller mill. The fibers were 0.10-0.014 mm. long after treatment with a 5% HCl. The structure of the lint remained unchanged after treatment with 5% HCl. The moisture content of the material is important for the disintegration of the fiber. The process of disintegration is shortened about 2 1/2 fold when the moisture content is lowered to 0.5-1%.

A. A. Bochtlingk

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

13000 17000 18000 19000 20000 21000 22000 23000 24000 25000 26000 27000 28000 29000 30000 31000 32000 33000 34000 35000 36000 37000 38000 39000 40000 41000 42000 43000 44000 45000 46000 47000 48000 49000 50000 51000 52000 53000 54000 55000 56000 57000 58000 59000 60000 61000 62000 63000 64000 65000 66000 67000 68000 69000 70000 71000 72000 73000 74000 75000 76000 77000 78000 79000 80000 81000 82000 83000 84000 85000 86000 87000 88000 89000 90000 91000 92000 93000 94000 95000 96000 97000 98000 99000

BERNSHTEYN, M. KH.

LOWERING THE CONTENT OF SYNTHETIC RUBBER IN SOLES
Kozhevenno-Obuvnaya Prom. S.S.S.R. 19, no. 6, 29 (1940).---The Content of
synthetic rubber in shoe soles may be lowered from 33 to 25% by increasing the
softeners and reclaimed rubber. A.A.Boehtlingk

30

64

RECEIVED AND EXEMPTED INDEX

Rubberlike product A. P. Pisarenko, M. Kh. Bern-
shchik, and A. D. Zolouchkovskii U.S.S.R. 66,700.
July 31, 1960. Tech. mixts. of unsatd. org. compds.
and resinous substances are copolymerized with rubber by
heating in the presence of H₂SO₄ and other catalysts.
M. Hosh

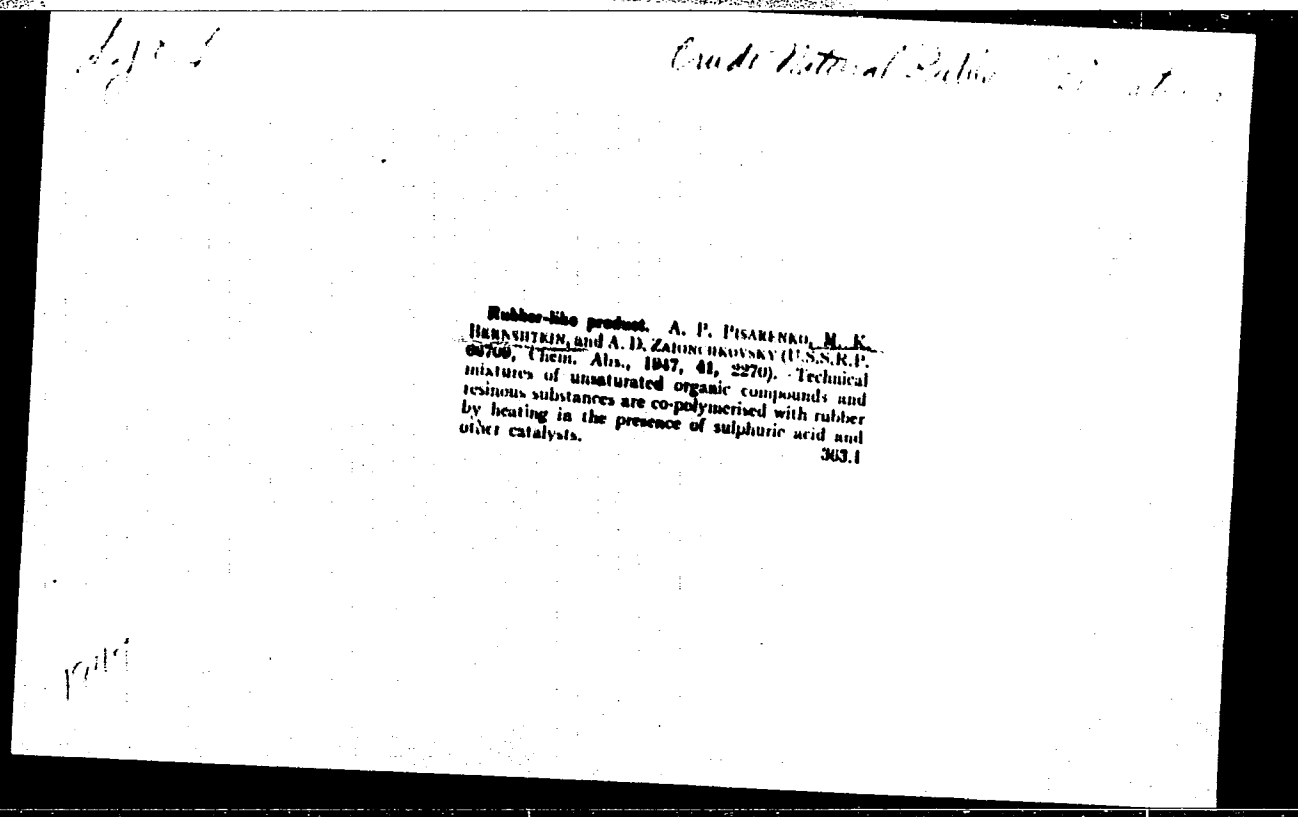
ASB SLA METALLURGICAL LITERATURE CLASSIFICATION

1800W 110 03194

SYMBOL NO. 110 03194

1800W 110 03194

SYMBOL NO. 110 03194



BERNSHTEYN M. KH.

YABKO, Ya.M., kandidat tekhnicheskikh nauk; BERNSHTEYN, M.Kh.,
kandidat tekhnicheskikh nauk; SHMERLING, B.H., kandidat tekhnicheskikh nauk.

Artificial leather. Nauka i zhizn' 21 no.8:35 Ag '54. (MLRA 7:8)
(Leather, Artificial)

ZAYONCHROVSKIY, A.D.; ~~BERNSHTEYN, M.Kh.~~; KIRIYENKO, N.V.; ABRAMOVA, V.V.;
GUZIKHIN, N.S.; ~~SHMERLING, E.N.~~; YABKO, Ya.A.; PEKAR, Ya.A.;
PESHKOV, P.V.

Artificial leather for the uppers of open summer footwear. Leg.
prem. 16 no.1:20-23 Ja '56. (MIRA 9:6)
(Shoe industry) (Leather, Artificial)

BERNSHTEYN, M. Kh.

ZAYONCHKOVSKIY, A.D.; YABKO, Ya.M.; MIKHAYLOV, N.A.; FEOKTISTOV, V.K.;
SHMERLING, B.M.; BERNSHTEYN, M. Kh.; GUS'KOV, F.G.; PARAMONOV, V.G.;
GLUZMAN, G.M.; GRIGORIADI, M.T.

Polyamide treatment of imitation kidskin and flesh layer splits.
Leg.prom. 16 no.10:22-26 0 '56. (MIRA 10:12)
(Hides and skins) (Amides)

SOV/19-59-6-72/685

AUTHORS: Zayonchkovskiy, A.D., Yabko, Ya.M., ~~Bernshteyn, M.Kh.~~
Shmerling, B.M., Kiriyeenko, N.V., Vishnevskaya, M.D., Abra-
mova, V.V., Lenivtsev, A.I., and Sonkina, G.F.

TITLE: A Method of Obtaining Artificial Shoe Leather for the Uppers
of Footwear (Sposob polucheniya iskusstvennoy kozhi dlya
verkha obuvi)

PERIODICAL: Byulleten' izobreteniy, 1958, Nr 6, p 20 (USSR)

ABSTRACT: Class 8 1, 2. Nr 113762 (558397 of 11 Apr 1956). Submitted
to the Committee for Inventions and Discoveries at the Mi-
nisters Council of USSR. A method of producing artificial
leather by covering a fibrous base with a film of a thermo-
plastic polymer and then pressing them together, by pres-
sing the fibrous base upon the film preliminarily spread on
the press plate; the quality of the product is improved by
using in the first case plates with flanges (projections)

Card 1/2

A Method of Obtaining Artificial Shoe Leather for the Uppers of Footwear SOV/19-58-6-72/685

as deep or deeper than the thickness of the coating film,
and in the second case - by coating the plate with the film
material only up to the upper edge of the flanges (projec-
tions).

Card 2/2

ZAYONCHKOVSKIY, Anton Denisovich, prof.; BERNSTEIN, Morfukh Khatskelavich;
YABKO, Yakov Moiseyevich; SHMERLING, Boris Moiseyevich [deceased];
GUSEVA, A.I., red.; KNAKIN, M.T., tekhn.red.

[Technology of artificial leather with a fiber base (IK)] Tekhnologia iskusstvennoi kozhi na voloknistoi osnove (IK). Pod obshchei red. A.D.Zaionchkovskogo. Moskva, Gos.nauchno-tekhn. izd-vo lit-ry po legkoi promyshl., 1959. 423 p. (MIRA 12:9)
(Leather, Artificial)

ZAYONCHKOVSKIY, A.D. , prof., doktor tekhn.nauk; YABKO, Ya.M., kand.
tekhn.nauk; VISHNEVSKAYA, M.D., mladshiy nauchn.sotrudnik;
TUMARKINA, I.D., studentka; BERNSHTEYN, M.Kh., kand.tekhn.nauk

Steam permeability of artificial leather. Izv.vys.ucheb.sav.;
tekhn.leg.prom. no.1:42-56 '59. (MIRA 12:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut plenochnykh
materialov i iskusstvennoy kozhi i Vsesoyuznyy zaochnyy institut
tekstil'noy i legkoy promyshlennosti. Rekomendovana kafedroy
tekhnologii obuvi, kozhi, mekha i iskusstvennoy kozhi Vsesoyuz-
nogo zaochnogo instituta tekstil'noy i legkoy promyshlennosti.
(Leather, Artificial--Testing)

ZAYONCHKOVSKIY, A.D.; BERNSHTEYN, M.Kh.; KIRIYENKO, N.V.; YABKO, Ya.M.

Artificial leather made with an IK fibrous base for shoe welts.
Kozh.-obuv. prem. no.5:20-24 My '59. (MIRA 12:6)
(Leather, Artificial) (Shoe manufacture)

ZAYONCHKOVSKIY, A.D., doktor tekhn.nauk; YABKO, Ya.M., kand.tekhn.nauk;
FREYDGEYM, K.I., nauchnyy sotrudnik; BERNSHTEYN, M.Kh., kand.tekh.nauk

Development of the method of obtaining foams from a polyvinyl
chloride paste for the manufacture of artificial leather.
Nauch.-issl.trudy VNIIPK no.12:11-18 '60. (MIRA 16:2)
(Leather, Artificial) (Vinyl polymers)

ZAYONCHKOVSIIY, A.D.; ALEKSEYENKO, V.I.; BERNSHTEYN, M.Kh.; YABKO,
Ya.M.; KIRIYENKO, N.V.

Use of polyethylene in manufacturing artificial leather. Kozh.-
obuv.prom. 2 no.7:14-18 J1 '60. (MIRA 13:8)
(Leather, Artificial)
(Polyethylene)

ZAYONCHKOVSKIY, A.D.; BERNSHTAYN, M. Kh.; YABKO, Ya.M.

Ways of improving the external appearance of artificial leather
made from IK fibers. Kozh.-obuv.prom. 3 no.1:20-23 Ja '61.
(MIRA 14:5)

(Leather, Artificial)

Bernsh+eyn, M. Kh.

S/081/63/000/004/049/051
B156/B180

AUTHORS:

Blokh, G. A., Zhurko, V. A., Zayonchkovskiy, A. D., Kiriynko, M. V., Karpov, V. L., Brager, A. Kh., Tsipenyuk, E. V., Vyasankina, M. A., Bronsh+eyn, M. Kh., Bernsh+eyn, M. Kh., Yabko, Ya. M.

TITLE:

The radiation vulcanization of rubbers and reclaimed rubbers together with plastics

PERIODICAL:

Referativnyy zhurnal. Khimiya, no. 4, 1963, 648 - 649, abstract 4T549 (Koshevenno-obuvn. prom-st', no. 5, 1962, 17 - 20)

TEXT: The effects of exposure to radiation were studied on the physical, mechanical and chemical properties of the following combined systems of polymers: rubber CMC-30 (SKB-30), CKB (SKB), HK(HK) - thermoplastics (low and high molecular-weight polyethylene, and polystyrene); ratios of thermoplastics to rubber of 0 - 100 % were used. The radiation dose (Co 60) was 1 - 100 Mrad. The plasticity, hardness, wear-resistance, strength, percentage, elongation, permanent set etc. were determined, and

Card 1/2

The radiation vulcanization of ...

S/081/63/000/004/049/051
B156/B180

plotted versus temperature in the 40 - 200°C range. The effect of irradiation on mixtures of rubbers with polyethylene or polystyrene is that cross-linking occurs between the two polymers, to form substances with valuable physical and mechanical properties: the plasticity is greatly reduced, while the strength, wear-resistance and heat-resistance are improved. Abstracter's note: Complete translation.

Card 2/2

BERNSHTEYN, M.Kh.; YABKO, Ya.M.; ZAYONGHKOVSKIY, A.D.; KRZHIZHANOVSKIY, K.O.;
ZMYATIN, K.K.; BERNSTEYN, Ye.S.; BARKOVA, L.V.; PROKURAT, R.E.;
VTOROV, G.N.

Artificial leather with a nonwoven base. Kosh.-obuv.prom. 5 no.4:
18-21 Ap '63. (MIRA 16:5)

(Leather, Artificial)

BERNSHTEYN, M.Kh.; YABKO, Ya.M.; BAKHTIAROVA, Ye.R.; SHUVALOVA, L.S.;
ZAYONCHROVSKIY, A.D.; LIPSHITS, I.D.; GRINYUK, V.G.

Utilization of cotton manufacture wastes for the production
of "IK" artificial leather. Kosh.-obuv. prom. 5 no.6:25-28
Je '63. (MIRA 16:6)

(Leather, Artificial)

KORMUSHKIN, K.A.; ZAYONCHKOVSKIY, A.D.; ALEKSEYENKO, V.I.;
BERNSHTEYN, M.Kh.; YABKO, Ya.M.; KITAYEV, L.P.; YELPIDIN, N.F.;
KIRIYENKO, N.V.

Use of low-pressure polyethylene for the manufacture of sole
parts. Kozh. obuv. prom. 5 no.7:26-29 JI '63.

(MIRA 16:8)

(Boots and shoes, Rubber)

BERNSHTEYN, M.Kh.; YABKO, Ya.M.; LEVIN, A.S.; ZAYONCHKOVSKIY, A.D.;
ZHURKO, V.A.

Artificial leather in rolls with a nonwoven base for the shoe
uppers of summer footwear. Kozh.-obuv. prom. 6 no.7:20-23
Jl '64. (MIRA 17:8)

ZAYONCHKOVSKIY, A.D., prof.; ~~BERNSHTEYN, M.Kh., kand. tekhn. nauk; YABKO, Ya.~~
~~M., kand. tekhn. nauk; KRASNOV, B.Ya.~~

Artificial leather. Priroda 54 no.1:75-79 Ja '65.

(MIRA 18:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut iskusstvennoy
kozhi i plenochnykh materialov, Moskva.

BERNSHTEYN, M. L.

USSR/Metals

Sep/Oct 48

Alloys, High-Temperature
Steel Alloys

"Heat-Resistant Properties of Chrome-Nickel-Molybdenum, Type 16-25-6 Steel," G. V. Estulin, Cand Tech Sci, M. L. Bernshteyn, Engr, L. K. Gumenny, Members, Soc of Metallurgists, 5 pp

"Vest Inzhener i Tekhnik" No 5

Describes tests on samples of subject steel. Establishes alterations in structure and properties of steel produced by various heat treatments. Determines heat resistance. Includes seven photographs, and seven graphs.

32/49T58

BERNSHTEYN, M. L.

PA 14/49T39

USSR/Engineering
Machines, Testing
Endurance Testing

Jun 48

"Small-Size Machine for Endurance Testing," M. L.
Bernshteyn, 2 pp

"Zavod Lab" Vol XIV, No 6

Describes machine in detail. Drawings and photo-
graphs.

14/49T39

BERNSHTEYN, M. I.

28996 Mashina dlya ispytaniya materialov pri slozhno-napryazhennom sostoyanii.
Zavod skaya laboratoriya, 1949, No. 9, S. 1136-38

SC: Letopis' Zhurnal'nykh Statey, Vol. 39, Moskva, 1949

TEST AND PROPERTIES INDEX																									
TEST AND PROPERTIES													TEST AND PROPERTIES												
<p>Fatigue-Test Machine for High-Temperature Testing. (In Russian.) M. L. Bernshchik, <i>Zavodskaya Laboratoriya</i> (Factory Laboratory), v. 15, Apr. 1949, p. 497-500.</p> <p>Thoroughly describes and diagrams the above. Optimum conditions of operation and method of calculation are indicated.</p>																									
<p>ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION</p>																									
<p>130000 H1P QNV GDE</p>													<p>130000 H1P QNV GDE</p>												
<p>130000 H1P QNV GDE</p>													<p>130000 H1P QNV GDE</p>												

1ST AND 2ND ORDER										3RD AND 4TH ORDER									
PROCESSES AND PROPERTIES INDEX																			
<div style="display: flex; justify-content: space-between;"> 2 Q </div> <div style="text-align: center;"> <p>676. Apparatus for Testing Materials Under Complex-Stress Conditions. (In Russian.) M. L. Petrovskii, W. M. Onchukov, and I. A. Yarov. <i>Sovetskaya Laboratoriya (Factory Laboratory)</i>. V. 10, Sept. 1956, p. 1155-1158.</p> <p>Machine which permits testing to be done at room and elevated temperatures under complex-stress conditions—bending plus tension. (GMS)</p> </div>																			
<div style="display: flex; justify-content: space-between;"> <div> <p>COMMON ELEMENTS</p> <p>COMMON VARIABLES MOST</p> </div> <div> <p>1ST AND 2ND ORDER</p> <p>3RD AND 4TH ORDER</p> </div> </div>																			
<p>ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION</p>										<p>FROM ROMANY</p>									
<p>1ST ORDER</p>										<p>2ND ORDER</p>									
<p>3RD ORDER</p>										<p>4TH ORDER</p>									

BERNSHTEYN, M.L., kandidat tekhnicheskikh nauk.

Testing heat-resistant steel in conditions of combined stress.
Sbor.Inst.stali no.32:314-333 '54. (MLRA 10:5)

1.Kafedra metallovedeniya i termicheskoy obrabotki.
(Steel--testing)
(Heat resistant alloys--Testing)

BORZDYKA, Anatoliy Matveyevich; ~~BERNSHTEYN, M.I.~~ redaktor; GOLYATEKINA, A.G.,
redaktor; VAYNSHTEYN, Ye.B., tekhnicheskii redaktor

[Methods of mechanical heat testing of metals] Metody goriachikh
mekhanicheskikh ispytani metallov. Moskva, Gos. nauchno-tekhn.
izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1955. 352 p.
(MIRA 8:4)
(Metals--Testing) (Metals, Effect of temperature on)

BERNSHTEYN, M.L.

GUREVICH, David Yakovlevich; SHAPIRO, B.S., inzhener, retsenzent;
FEDOSOV, N.M., redaktor; ~~BERNSHTEYN, M.L., redaktor;~~
MIKHAYLOVA, V.V., ~~tekhnicheskii redaktor~~

[Concise manual for rolling mill operators] Kratkii spravoch-
nik prokatchika. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po
chernoi i tsvetnoi metallurgii, 1955. 415 p. (MLRA 8:10)
(Rolling mills)